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Installation instructions

Serial to Ethernet converter

KERN YKI-10

Type TYKI-10-A

Version 1.0

2025-02

GB



TYKI-10-A-IA-e-2510



KERN YKI

Version 1.0 2025-02

Installation instructions Serial to Ethernet converter

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1 Scope of delivery

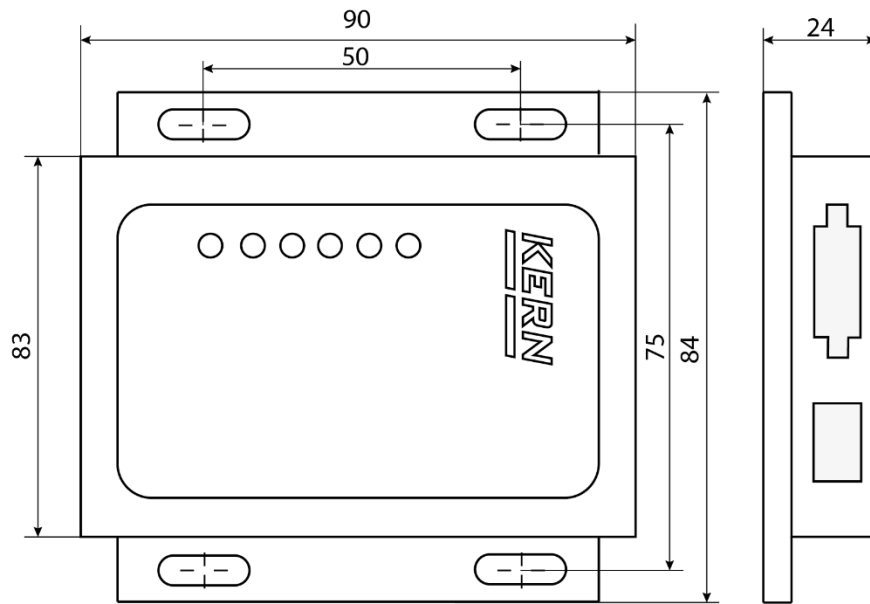
The delivery includes:

- YKI-10 Ethernet
- Mains adapter (EU)
- KERN installation instructions (German / English) in paper (this document)

If any of the items listed above are missing, contact your dealer immediately.

2 Technical Data

KERN	TYKI-10-A	
Hardware parameters	Ethernet	1 x RJ45, 10/100 Mbps
	Interfaces	1 x RS232, DB9 connector,
	Baud rate	600-230400 bps
	Input voltage Device	5-36 V DC
	Input voltage power supply unit	100-240 V AC; 50 / 60 Hz;
	Output voltage power supply unit	12 V; 1 A
	Working temperature	-40-+ 85 °C
	Storage temperature	-40-+ 105 °C
	Humidity during operation	5-95 % (non-condensing)
	Dimensions	82.5 x 86 x 25 mm (L x W x H)
	Work mode	TCP server
Network	Network protocol	TCP / IP
	IP assignment	Static / DHCP
	Internet protocol version	IPv4
	User settings	Web server



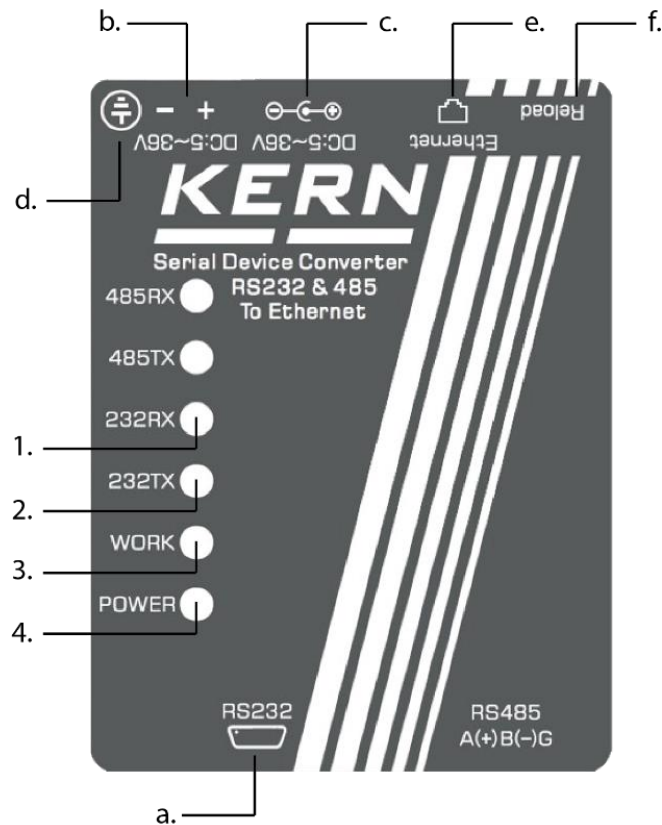
3 Default settings

Parameters	Standard setting
Static IP	192.168.0.7
MAC address	See type plate
Username	admin
Password	admin

3.1 Standard settings RS232 interface

Parameters	Standard setting
Baud rate	115200
Data bits	8
Parity	None
Stopbit	1
Flow Control	None
Port	23

4 Product overview



4.1 LED overview

Pos.	LED	Status
1.	232RX	Flashing: Receives data from serial interface (RS232) Off: No data is received from the interface (RS232)
2.	232TX	Flashing: Sends data to serial interface (RS232) Off: No data is sent to the interface (RS232)
3.	Work	Flashing: Function normal Off or constantly lit: malfunction
4.	Power	Lights up: Power on Off: Power off

4.2 Connection overview

Pos.	Connection
a.	RS232 interface
b.	Power supply for top-hat rail mounting
c.	Power supply for power supply unit
d.	Earthing screw
e.	Ethernet
f.	Reload button



Only one of the two supply voltage connections (pos. b. or c.) may be used!

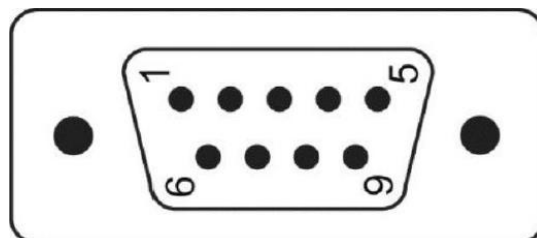
4.3 Pin assignment



Pin 7 and pin 8 do not need to be connected

However, they must never be connected directly to the computer, as this can lead to malfunctions

BD9 Pin	RS232
1	
2	RXD
3	TXD
4	
5	Ground
6	
7	RTS
8	CTS
9	



5 Installation

5.1 Installing the interface on the scales

1. Connect the YKI to the power supply unit and the power socket
2. The Power LED lights up continuously and the Work LED starts to flash.
3. Connect the RS 232 cable of the scale to the YKI
4. Switch on the scales

5.2 Connecting and configuring the Ethernet interface



Use a standard Ethernet cable (straight through) to connect to a PC or router

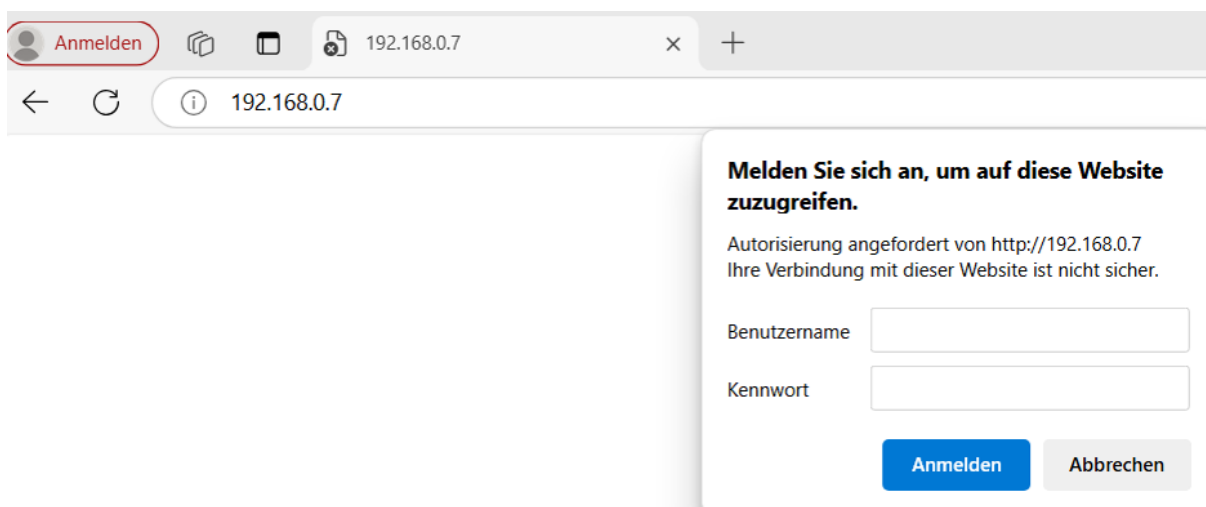
1. Connect YKI to the network/PC with an Ethernet cable
2. Establish TCP connection

5.3 Setting the IP address

The interface is configured with a fixed IP address by default (see chapter 3) The IP address can be configured as required via the configuration page.


5.4 Overview of the configuration page

The configuration page can be called up in the address bar under the IP address of the YKI.



After entering the user name and password (see chapter 3), the default settings can be changed.

The configuration page interface is structured as follows:

 USR IOT -IOT Experts- <i>Be Honest, Do Best!</i>		
Current Status	parameter	help
Local IP Config	Module Name: USR-TCP232-410S	<ul style="list-style-type: none"> • Run time: run time means the minutes since latest reboot • TX/RX Count: TX/RX count give us a calculation of the total byte we have been received or send.
RS232	Firmware Revision: 3015	
RS485	Current IP Address: 192.168.178.22	
Web to Serial	MAC Address: d4-ad-20-63-bc-e0	
Misc Config	Run Time: 0day: 0hour: 56min:27	
Reboot	TX Count(ETH) : 339598/0 bytes	
	RX Count(ETH) : 435/0 bytes	
	Conn Status(ETH)A: CONNECTED(1)/LISTEN	
	Conn Status(ETH)B: IDLE/IDLE	



The "Save" button only saves the respective parameter change in the web interface. To make the change valid, the converter must be restarted!



After the "Save" button has been pressed, a new window must be displayed (see illustration below). If this does not happen, the page must be reloaded and the change made again!

Current Status	Reboot/Reset	
Local IP Config	Restart Module	<input type="button" value="Restart Module"/>
RS232		




The default settings can be restored using the reset function (see chapter 5.7)



Username and password can also be changed on the configuration page under "Misc Config".

5.5 Network settings

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Current Status	Parameters	Help
Local IP Config	<div>IP Type: <input type="text" value="Static IP"/></div> <div>DNS type: <input type="text" value="Auto"/></div> <div>Static IP: <input type="text" value="192"/> <input type="text" value="168"/> <input type="text" value="0"/> <input type="text" value="7"/></div> <div>Submask: <input type="text" value="255"/> <input type="text" value="255"/> <input type="text" value="255"/> <input type="text" value="0"/></div> <div>Gateway: <input type="text" value="192"/> <input type="text" value="168"/> <input type="text" value="0"/> <input type="text" value="1"/></div> <div>Dns Server: <input type="text" value="208"/> <input type="text" value="67"/> <input type="text" value="222"/> <input type="text" value="222"/></div> <div>Spare Dns Server: <input type="text" value="8"/> <input type="text" value="8"/> <input type="text" value="8"/> <input type="text" value="8"/></div> <div><input type="button" value="Save"/> <input type="button" value="Cancel"/></div>	<ul style="list-style-type: none">• IP type: StaticIP or DHCP• StaticIP: Module's static ip• Submask: Usually 255.255.255.0• Gateway: Usually router's ip address
RS232		
RS485		
Web to Serial		
Misc Config		
Module Manage		

Once the changes have been entered, the Save button must be pressed.




The "Save" button only saves the respective parameter change in the web interface. To make the change valid, the converter must be restarted!



After the "Save" button has been pressed, a new window must be displayed (see chapter 5.4). If this does not happen, the page must be re-loaded and the change made again!

5.6 Serial RS232 interface

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Be Honest, Do Best!

Current Status	<div>Parameters</div> <div>Baud Rate: <input type="text" value="115200"/> bps(600~230400)</div> <div>Data bit: <input type="text" value="8"/> bit</div> <div>Parity: <input type="text" value="None"/></div> <div>Stop bit: <input type="text" value="1"/> bit</div> <div>Flow ctrl: <input type="text" value="NONE"/></div> <div>UART Packet Time: <input type="text" value="0"/> (0~255)ms</div> <div>UART Packet Length: <input type="text" value="0"/> (0~1460)chars</div> <div>Sync Baudrate(RF2217 Similar): <input checked="" type="checkbox"/></div> <div>Enable Uart Heartbeat Packet: <input type="checkbox"/></div> <div>Socket A Parameters</div> <div>Work Mode: <input type="text" value="TCP Server"/> <input type="text" value="None"/></div> <div>TCP Server MAX Sockets: <input type="text" value="8"/> Up to MAX <input type="text" value="KICK"/></div> <div>Local Port Number: <input type="text" value="23"/> (1~65535)</div> <div>PRINT: <input type="checkbox"/></div> <div>Modbus Poll: <input type="checkbox"/> Response Timeout: <input type="text" value="200"/> (10~9999)ms</div> <div>Enable Net Heartbeat Packet: <input type="checkbox"/></div> <div>Socket B Parameters</div> <div>WorkMode: <input type="text" value="NONE"/></div> <div><input type="button" value="Save"/> <input type="button" value="Cancel"/></div>	Help
Local IP Config		
RS232		
RS485		
Web to Serial		
Misc Config		
Module Manage		

- **Local port:** 1~65535. When TCP Client, set this to 0 means using random local port
- **Remote port:** 1~65535
- **Packet time/length:** Default 0/0, means automatic packet mechanism; you can modify it as a none-zero value

The default settings of the RS232 interface are shown. For correct function, the interface parameters of the scale must be set in the configuration interface. The default settings can be found in the manual for your scale. If you have changed the interface settings of the scale, call up the current settings on the scale. Information on calling up the menu can also be found in your scale manual.



The "Save" button only saves the respective parameter change in the web interface. To make the change valid, the converter must be restarted!



After the "Save" button has been pressed, a new window must be displayed (see chapter 5.4). If this does not happen, the page must be re-loaded and the change made again!

5.7 Restore default settings

1. Disconnect the power supply to the YKI
2. Press and hold the reload button
3. Restoring the power supply to the YKI
 - ➔ Keep the reload button pressed for at least 5 seconds
 - ➔ Factory settings are restored

6 Small breakdown service

Error	Remedy
Connection cannot be established	Ensuring the power supply to the YKI and the scales
	Ensure that the scales are switched on
	Ensure that the correct RS232 cable is used. For details, please refer to the manual of your scale.
	Ensure use of a standard Ethernet cable
	Enter the correct IP address in the target software
No communication possible after changing the IP address possible.	Check the configuration of the RS232 interface
	Check the settings and ensure that they have been saved.
Settings are not applied	Ensure that the correct port and IP address have been entered in the target software
	Reload page and make settings again

If the fault cannot be rectified, contact your dealer.